. . . from concept to acquisition
NAVAL WIRELESS NETWORKS SUMMIT
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# Contents

- Mobility – new behaviors and new value domains
- Mobilizing the Enterprise
- Segmentation Approach
- Enabling End-to-End Solutions


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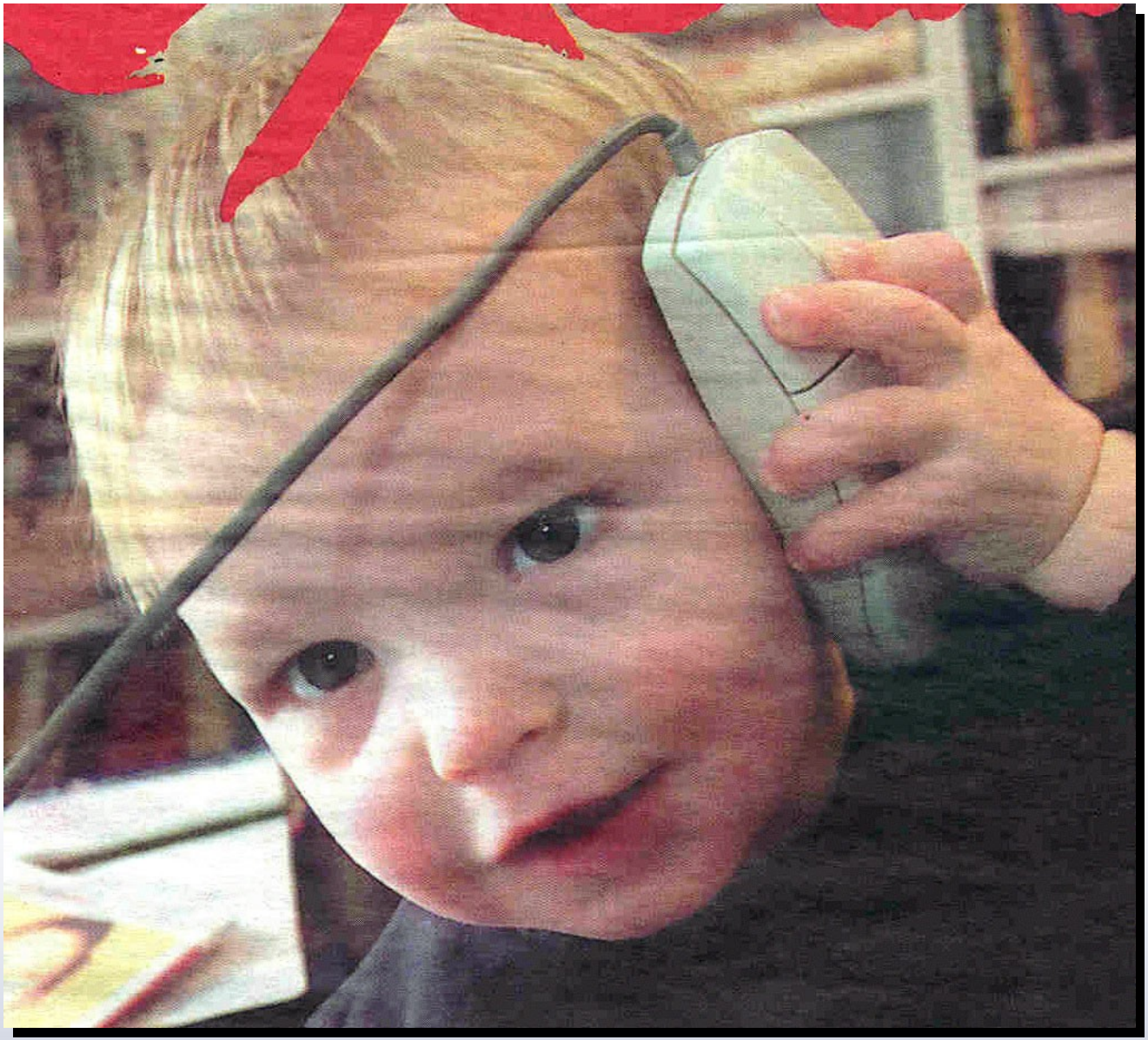
# Behaviors



From Turun Sanomat *Extra*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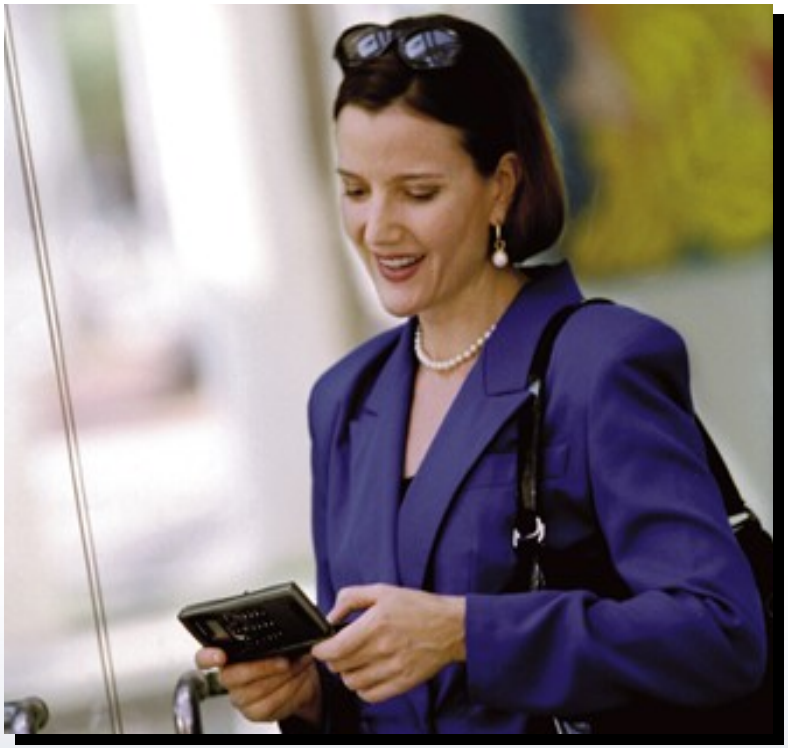
# New Behaviors



”A qwerty in every pocket”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# Mobility = new behaviors = new value domains

- Focus on mobile worker needs
- Work on the move is different from the work at the office
- For a mobile worker, being connected means a selection of communication methods available while on the move
- Open standards enable maximum interoperability


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# Enterprise attitudes to mobility

- Enterprises that consider mobility as an expense don’t understand mobility
- Enterprises that are utilising mobility
- Enterprises that have made mobility a part of their core business strategy


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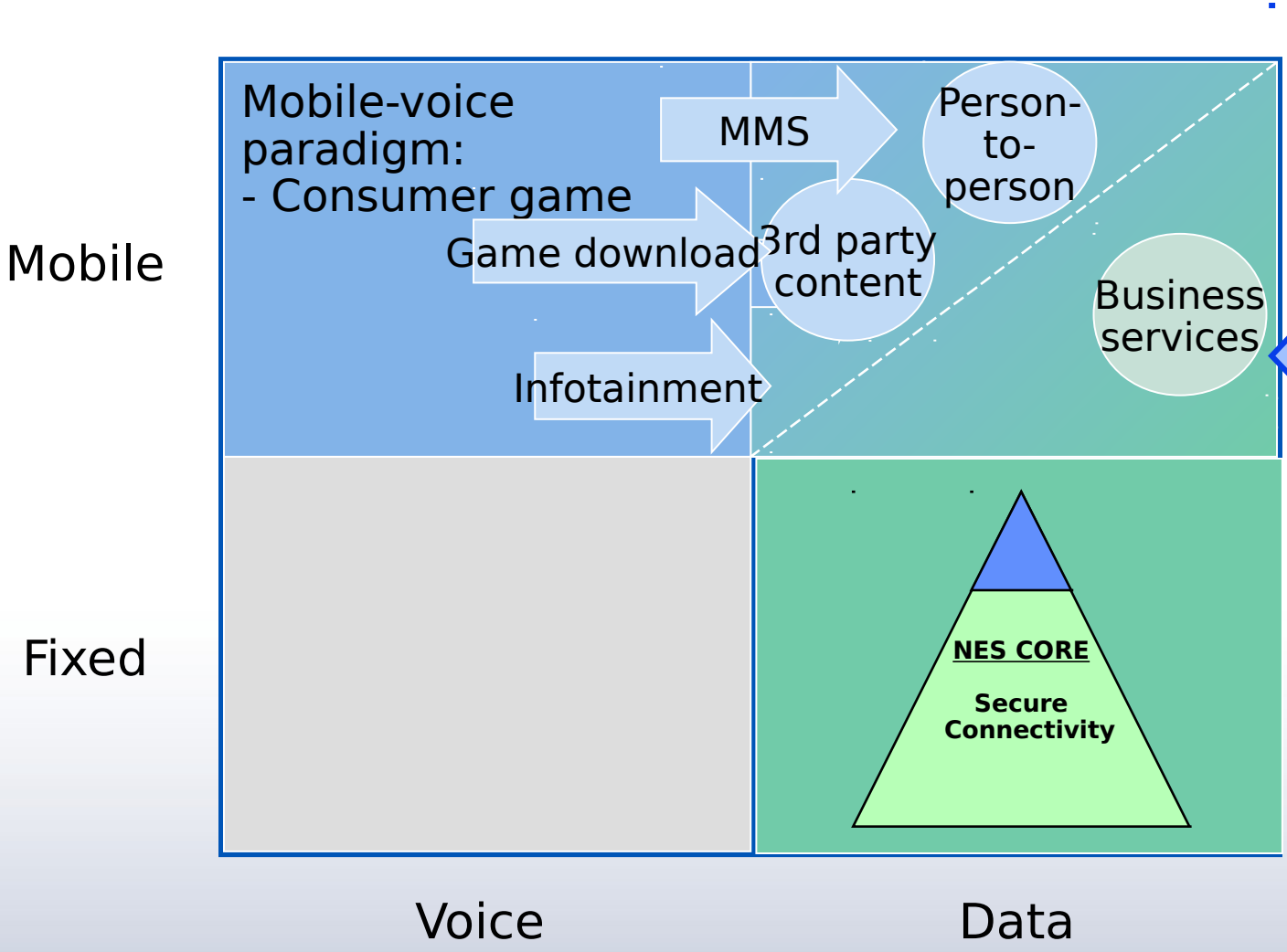
# Nokia Strategy




**Nokia Strategy**

- **Continue to deliver mobile voice**
- **Drive consumer multimedia**
- **Bring extended mobility to enterprises**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# Mobilizing the Enterprise


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# Work Goes Mobile

- Enterprises of all sizes are being extended
- Increasingly, this extension is occurring via mobile connections
- The requirement for ‘any device to any content’ must be satisfied
- Information Security moves from barrier to key business enabler

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# Optimum mobile investment is a combination of hard business criteria and individual worker's needs

## Mobile Worker

**I prefer:**

- Functionality
- Ease of use
- Personality
- "Irrational aspiration"

+

## IT Manager

**I am concerned with:**

- Security
- Connectivity
- Performance
- Terminal management
- Applications

+

## Business Owner

**I base my decisions on:**

- Business benefits and ROI
- Total cost of ownership
- Improved productivity
- Employees' quality of life


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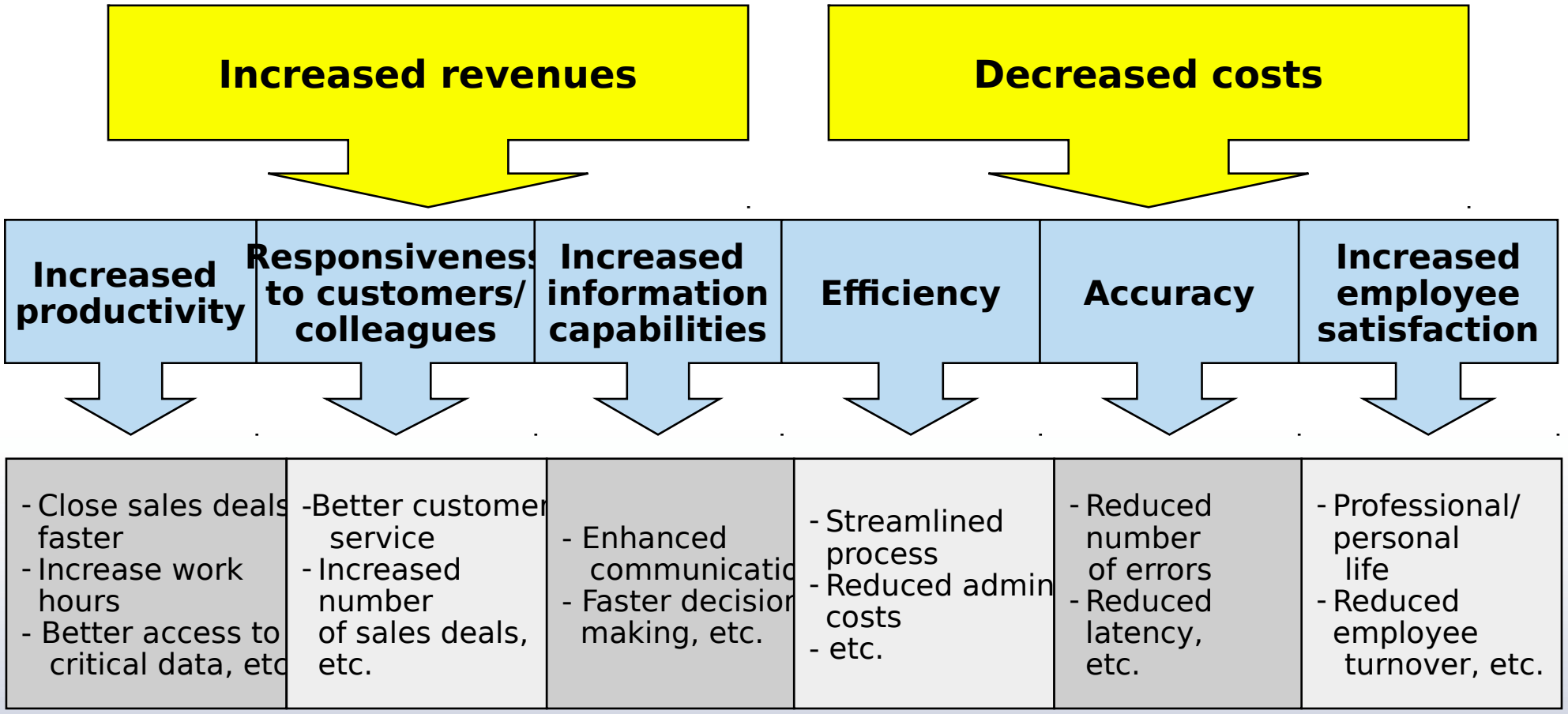
# A well-planned ROI strategy includes multiple benefits

Where would your company gain benefits by mobilizing some process?

**ROI Tool Quantifies the Benefits of your Mobile Project**




Original source: Gartner 2002, modified by Nokia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# Segmentation approach


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# One size does not fits all...


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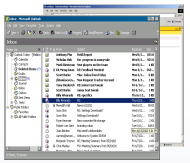
# Employees need a multitude of services - but not everyone needs all services

**Business processes**
Office applications (Notes, MS) and company specific vertical applications (CRM, SFA, ERP,...)

**Business connectivity**
Access to intranet from PC/laptop/ terminal

**PIM**
Calendar, phonebook, contacts

**e-mail**
e-mail to PC or mobile



**Messaging**
Voice, SMS, MMS, instant messaging

**Voice**
Calls in office and on the move

Person-to-System
(company specific apps like Notes, CRM,...)

Person-to-Person
(general business apps voice, e-mail,...)

**Number of workers using the service**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# Segmentation Thinking

Right size, features and price for individual business user's needs

| | Series 40 | Series 60 | Series 80 |
|---|---|---|---|
| **Typical device formats** | | | |
| **Typical screen sizes** | | | |
| | **128 x 128** | **176 x 208** | **640 x 200** |


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# Full range of business optimized products

## With consistent system features across all terminals

| End-user needs | | Mobile solution |
|---|---|---|
| Access to back-office applications | | • Access to back-office applications<br>• Mobile document creation<br>• Messaging with e-mail attachment support<br>• Mobile voice (conference call) |
| Person-to-person messaging | | • Messaging with full QWERTY keyboard<br>• Mobile voice (speakerphone, conference call) |
| Personal information management | | • Messaging with integrated camera<br>• Mobile voice (speakerphone, conference call) |
| Mobile voice | | • Mobile voice<br>• Basic messaging |
| Laptop user | | • Mobilize laptop<br>• Laptop access to corporate intranet |

- **Personal Information Management (PIM)**
- **Mobile e-mail support**
- **Back-up**
- **Synchronization**
- **Connectivity to IT infrastructure**
- **Terminal security**
- **Terminal management**
- **OTA settings**
- **Development tools**


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# Enabling end-to-end solutions


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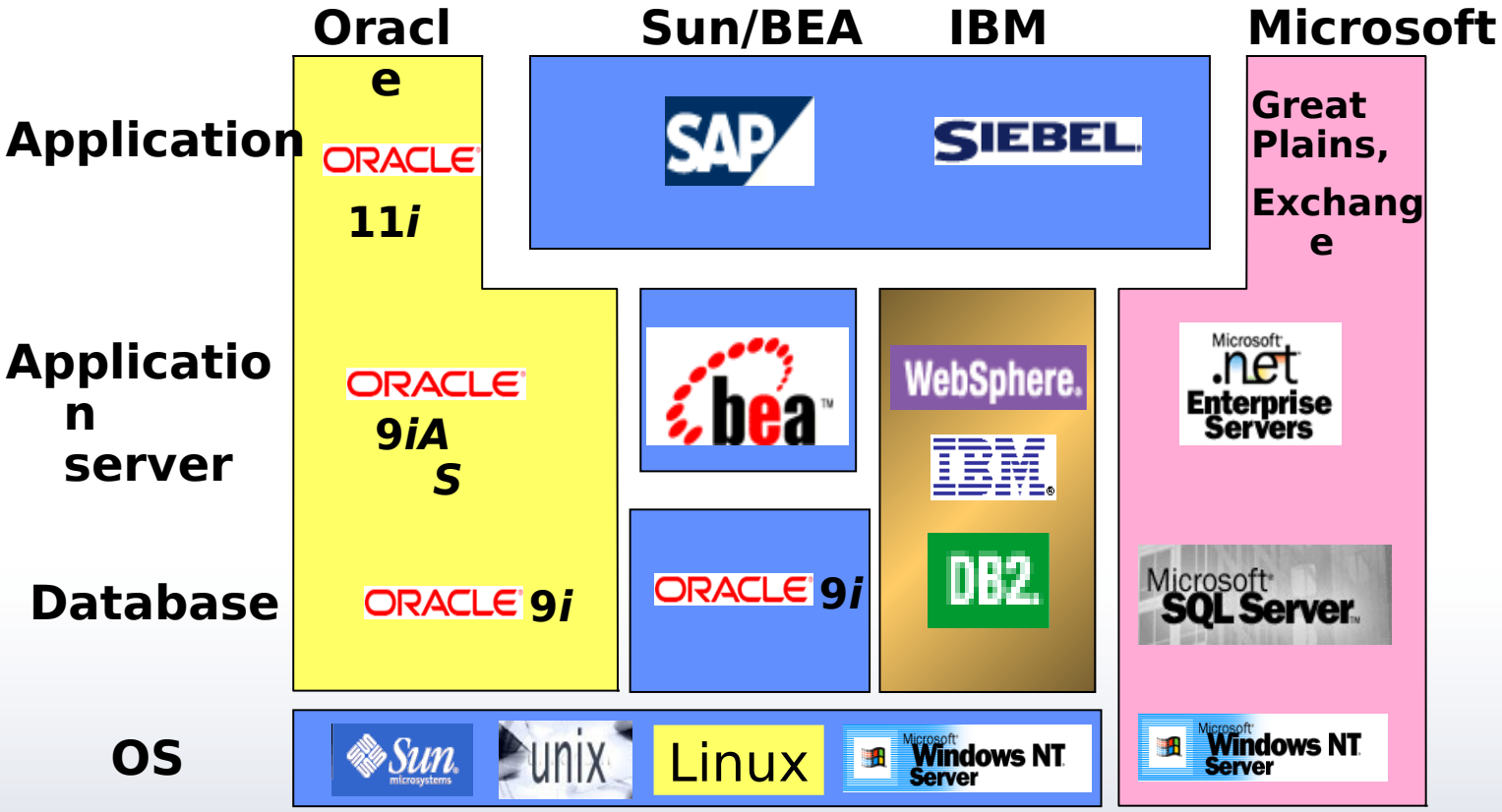
# The Back-End Stacks




Source: McKinsey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# Co-operation with leading companies

- Working with leading IT vendors for end-to-end solutions
- Terminal platforms:
  - IBM, Oracle, Research In Motion
- Mobile security and gateways:
  - Check Point, Trend Micro, F5, ISS
- Nokia email solutions interoperate with Microsoft exchange server, Lotus Notes, Novell Groupwise, SUN IPlanet and any other POP3 and IMAP4 email
  - Nokia One

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# End-to-End View: Network Architecture

Internet

Nokia Firewall or VPN gateway

3rd party fw/ VPN (Cisco, Nortel…)

**Partner solutions have significant role in corporates**

## Partner Solutions

IBM WEA

Oracle

RIM Blackberry

## Nokia Solution Platform

Secure Connectivi…

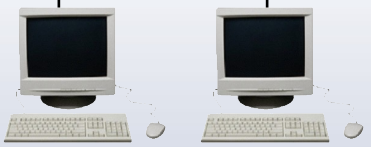
Solution Platform

## Intranet

**Mail servers** (POP, IMAP, SMTP)

**Internal Application servers** (Database access, SAP, webmail, etc.)

**AAA Authentication, Authorization, Accounting servers** (NT Domain, RADIUS, NIS, LDAP, etc.)



**Management consoles**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# Nokia’s Total Enterprise Offering

- Range of business terminals
- Fixed perimeter security (device security, security management)
- Mobile security & gateway solutions
- A range of solutions for operator enterprise offerings
- Nokia M2M (machine to machine) solutions
- Enhancements
- Third party mobile enterprise application development through Forum Nokia


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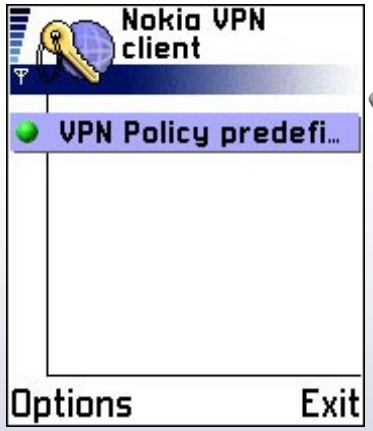
# Nokia Mobile VPN

- **Nokia Mobile VPN for Enterprises using Symbian based devices for mobile workers**
  - Require secure, reliable access to corporate services and applications
  - Nokia Mobile VPN for Symbian provides end-to-end security from terminal to enterprise VPN gateway
- **Based on open IPSec standards**
  - DES and 3DES for encrypting data connection to your enterprise
  - SHA-1 and MD5 for preserving integrity of data during connection
  - Legacy and PKI authentication for checking identity of mobile workers
- **Easy for mobile workers to use**
  - Built in Help
  - Automatic policy deactivation if inactivefor a period of time
  - Automatic policy updates via Nokia SSM



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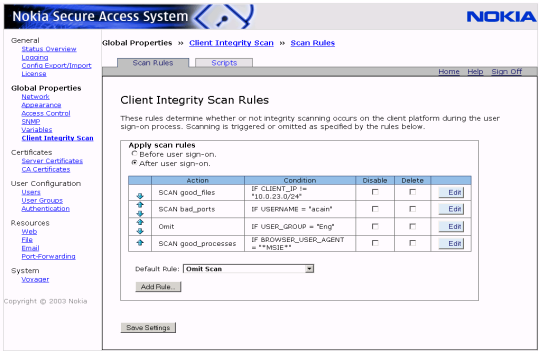
# Nokia Secure Access System



- Enables secure access:
  - for employees and business partners
  - from any standard Internet browser
  - to web-enabled and client/server applications
  - virtually any time, anywhere
- Uses ubiquitous SSL
- Runs on proven Nokia IP Security Platforms & IPSO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# Nokia Access Mobilizer

- What is it?
  - A server-based mobility solution
  - Software that provides access to core applications like email (including rich attachments) and PIM
  - A solution that automatically repurposes existing web and office documents and intranet-based applications
- What Problem Does It Solve?
  - Extends the reach of the information available in their current network infrastructure
  - Supports access to any content from any device, over any network
  - Integrates with Exchange, Domino, GroupWise, standard web servers
  - Supports access to popular 3rd-party email systems
  - Runs on IPSO-SX, Solaris, and Linux
- What do you need to make it work for you?
  - A browser-equipped mobile device that fits your needs

**Mobile & Wired laptops**

**mobile PDAs**

**Entertainment and media Terminals For Edu-tainment**

**Smart Phones, Hybrid PDAs, Business Terminals**

**Smart Phones, WAP Phones, Series 60 Phones**

**Lightweight, inexpensive browser-only terminals**


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# Extending Your Enterprise to Mobilize Business

| | Check Point VPN Client | Nokia Mobile VPN | Nokia Secure Access System | Nokia Access |
|---|---|---|---|---|
| **Device Type** | | | | |
| **Content Type** | **Any Content. Ideal for PC-based client/server applications** | **Any Content. Ideal for mobile client/server applications** | **Email and Web Enabled Content** | **Email and Web Enabled Content** *Real time content reformatting for phones and PDAs* |
| **Connectivity Type** | **Wired Wireless WiFi (Nokia D211/D311 cards)** *Accelerated DSL, GSM Data, GSM HSCSD, GPRS with Nokia Wireless Accelerator* | **Wireless** **GSM Data , GSM HSCSD, and GPRS** | **Wired** **Wireless WiFi** | **Wireless** **GPRS, GSM Data, GSM HSCSD, CDMA, TDMA, WiFi** |


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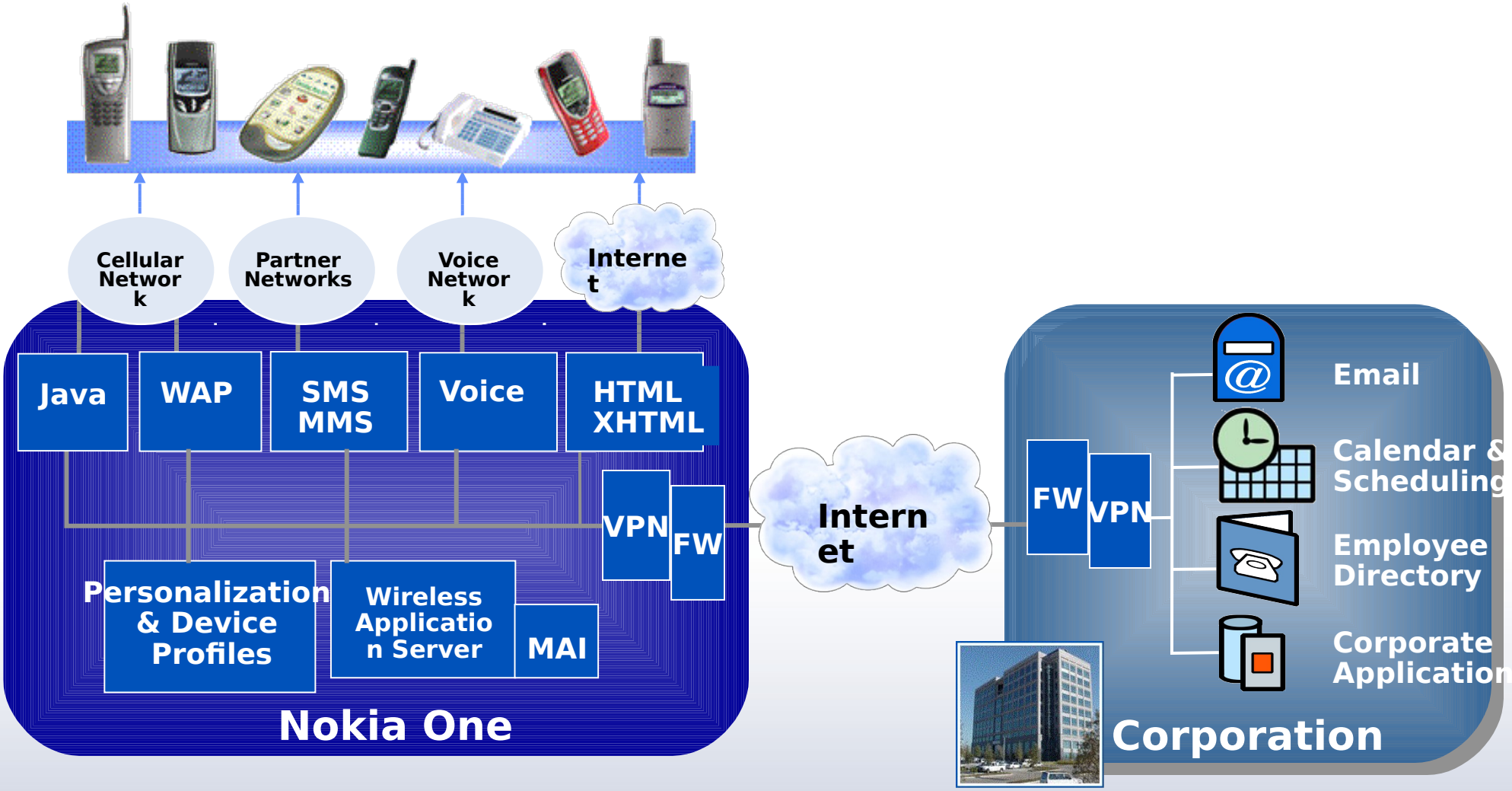
# Nokia One





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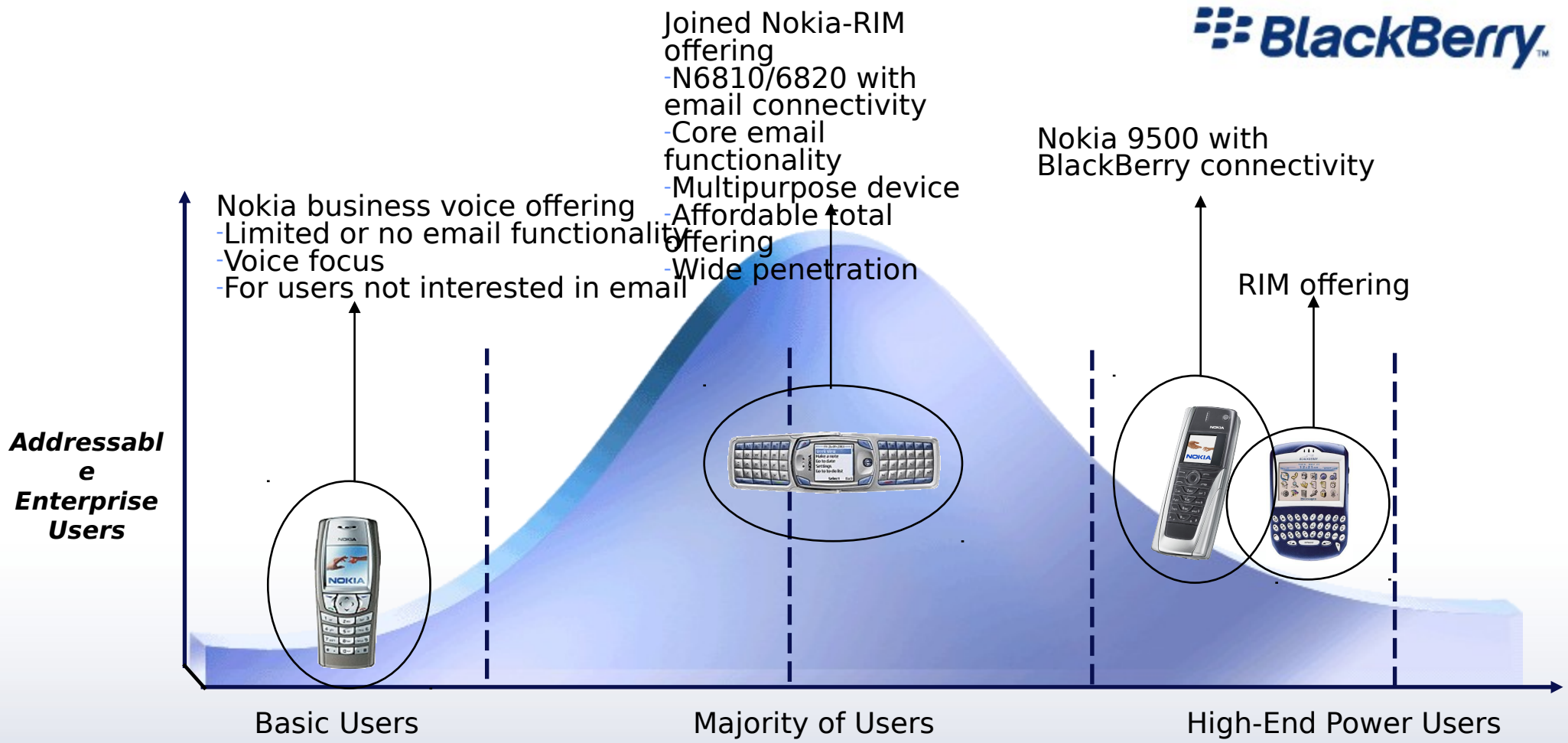
# Mobilize the entire business





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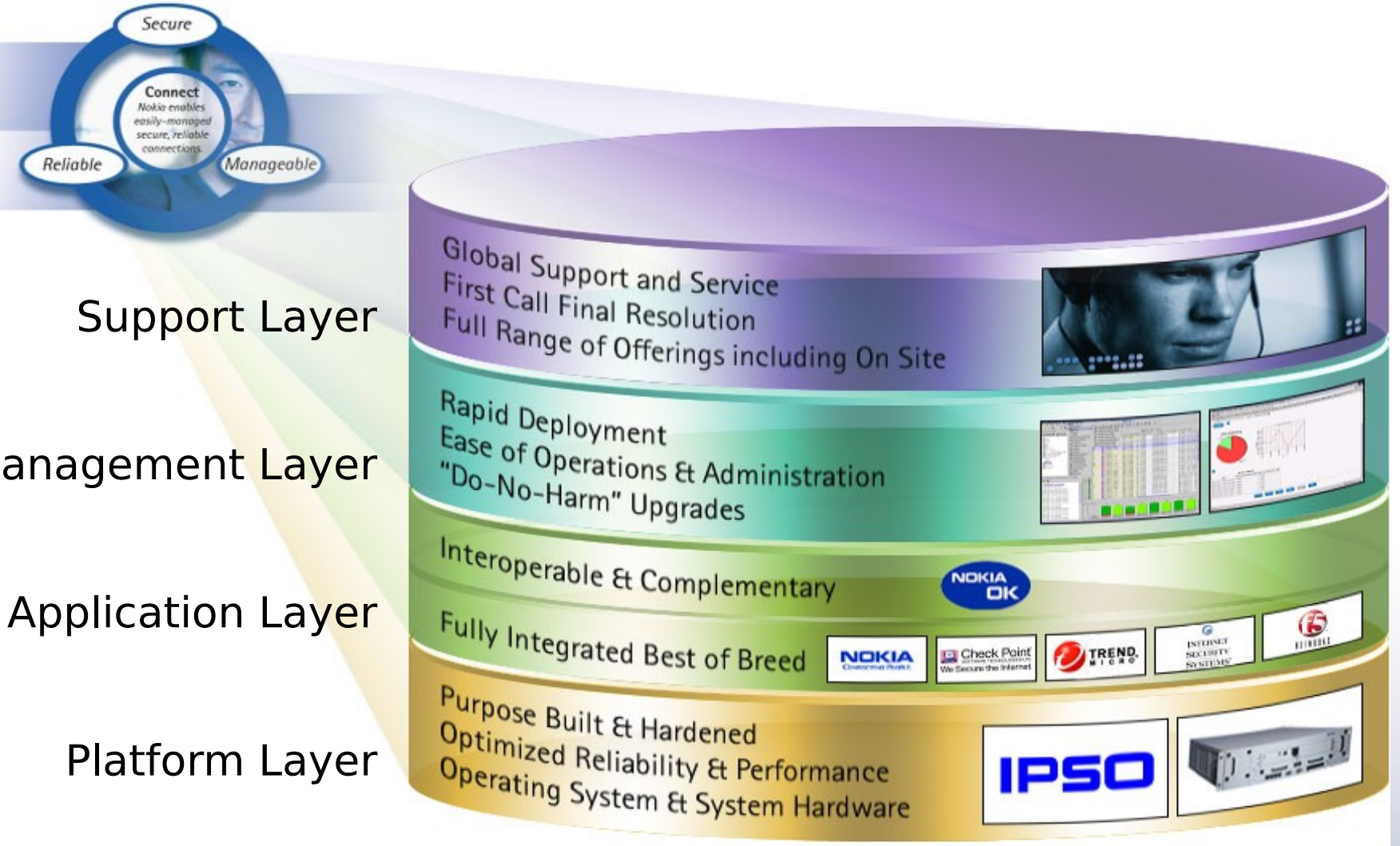
# The Nokia System Approach





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# Nokia’s positioning in the industry

- Independent terminal and mobile security & gateway supplier
  - Clear position in the value chain, easy to partner with
  - Providing interoperability based on agnostic solutions
- Rich segmented product range
  - Platform approach
- End-to-end mobility-optimized solutions
  - Security, management, reliability


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